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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/772,776

02/05/2004

David Bogart Dort

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05/03/2005

VRBIA, INC

PATENT DEPARTMENT

BOX 11795

CLEVELAND PARK STATION

WASHINGTON, DC 20008

EXAMINER

TRAN, DALENA

ART UNIT

PAPER NUMBER

3661

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/772,776	Applicant(s) DORT, DAVID BOGART	
	Examiner Dalena Tran	Art Unit 3661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-6, 11-13, 27-38, 43-50 and 79-81 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 11-13, 27-38, 43-50 and 79-81 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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DETAILED ACTION

Notice to Applicant(s)

1. This application has been examined. Claims 1-6,11-13,27-38,43-50, and 79-81 are pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5, and 79-81, are rejected under 35 U.S.C.103(a) as being unpatentable over Henson (5,134,393) in view of Helmcke et al. (3,796,871).

As per claim 1, Henson discloses a traffic control system for a traffic congestion zone, including: a traffic event sensing system, a traffic spacing system activated when said traffic event sensing system detects a first criteria (see at least columns 3-4, lines 39-41; column 6, lines 12-24; and column 8, lines 18-36), traffic spacing system including a plurality of vehicle speed regulation devices (see at least column 5, lines 16-64). Henson does not disclose at least a first of said plurality of vehicle speed regulating devices has a lower vehicle speed limit than a second of said plurality of vehicle speed regulating devices, first speed regulating device is behind said second speed regulating device in said traffic congestion zone. However, Helmcke et al. disclose wherein at least a first of said plurality of vehicle speed regulating devices has a lower vehicle speed limit than a second of said plurality of vehicle speed regulating devices, said first speed regulating device is behind said second speed regulating device in said

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traffic congestion zone, whereby at least two vehicles controlled by said first and second in said congestion zone are spaced apart as they move forward in said traffic congestion zone (see at least columns 2-3, lines 35-31; and columns 5-6, lines 55-7). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Henson by combining a first of said plurality of vehicle speed regulating devices has a lower vehicle speed limit than a second of said plurality of vehicle speed regulating devices, first speed regulating device is behind said second speed regulating device in said traffic congestion zone for accurately detecting spacing between vehicles therefore, determine a safe distance and speed control.

Also, as per claim 2, Helmcke et al. disclose wherein first criteria is the speed of a vehicle located near the exit of traffic congestion zone (see at least column 2, lines 11-34).

As per claim 3, Henson discloses speed of a vehicle is stopped (see at least columns 4-5, lines 64-15).

As per claim 4, Henson does not disclose speed of a vehicle is measured over a period of time. However, Helmcke et al. disclose speed of a vehicle is measured over a period of time (see at least columns 2-3, lines 35-31). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Henson by combining speed of a vehicle is measured over a period of time to measure average speed of vehicles to determine a congestion zone and controlling traffic regulating between vehicles.

As per claim 5, Henson discloses event detector is located on said roadway (see at least columns 3-4, lines 39-41; column 6, lines 12-24; and column 7, lines 3-35).

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As per claim 79, Henson discloses a method for reducing traffic congestion including the acts of: placing an acceleration limiting reception device in each of a plurality of vehicles (see at least columns 3-4, lines 39-41), and activating at least one of said plurality acceleration limiting reception devices in a congestion reduction zone (see at least columns 8-9, lines 37-20). Henson does not disclose transmitting instructions to at least one of said plurality of acceleration limiting reception devices cause the non-negative acceleration of a vehicle to be limited. However, Helmcke et al. disclose transmitting instructions to at least one of said plurality of acceleration limiting reception devices in at least one vehicle located in said congestion reduction zone, wherein said transmitted instruction cause the non-negative acceleration of a vehicle to be limited (see at least columns 5-6, lines 24-8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Henson by combining transmitting instructions to at least one of said plurality of acceleration limiting reception devices cause the non-negative acceleration of a vehicle to be limited to accurately determine vehicle speed limit for controlling speed regulating in a congestion zone.

As per claims 80-81, Helmcke et al. disclose activation takes place when a traffic event is detected, and deactivating said at least one of said plurality of acceleration limiting device (see at least column 6, lines 8-40).

4. Claim 6, is rejected under 35 U.S.C.103(a) as being unpatentable over Henson (5,134,393), and Helmcke et al. (3,796,871) as applied to claim 2 above, and further in view of Stein (6,816,084).

As per claim 6, Henson, and Helmcke et al. do not disclose event detector is a RADAR. However, Stein disclose event detector is a RADAR (see at least column 2,

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lines 58-67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Henson, and Helmcke et al. by combining event detector is a RADAR to monitor the preceding vehicle to determine vehicles spacing.

5. Claims 27-31, are rejected under 35 U.S.C.103(a) as being unpatentable over Henson (5,134,393) in view of Stein (6,816,084).

As per claim 27, Henson discloses a method for reducing traffic congestion in a traffic congestion area including the steps of: detecting an event causing a traffic congestion (see at least column 6, lines 13-23; and column 8, lines 18-36), detecting an intermediate distance between at least a second two vehicle in plurality of control zones and causing intermediate distance to increase if said intermediate distance is not within a target (see at least columns 8-9, lines 37-20), and detecting an end to said traffic congestion if a target distance is detected between two vehicles in one of said plurality of control zones (see at least columns 9-10, lines 21-39). Henson does not disclose causing an initial distance to increase by limiting the acceleration of at least one vehicle in at least one of said plurality of zones. However, Stein discloses detecting an initial distance between at least a first two vehicles in a plurality of control zones (see at least columns 3-4, lines 40-13), and causing initial distance to increase by limiting the acceleration of at least one vehicle in at least one of said plurality of zones (see at least columns 4-5, lines 24-19). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Henson by combining causing an initial distance to increase by limiting the acceleration of at least one vehicle in at least one of said plurality of zones to determine accurate spacing between vehicles.

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As per claim 28, Henson discloses initial distance is detected by speed strips (see at least the abstract).

As per claim 29, Henson does not disclose RADAR. However, Stein discloses initial distance is detected by RADAR (see at least column 2, lines 58-67). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Henson by combining initial distance is detected by RADAR to monitor the vehicles spacing to determine a safe distance.

As per claim 30, Stein discloses measuring said velocity of said first two vehicles nearly simultaneous to measure said initial distance (see at least columns 1-2, lines 43-57).

As per claim 31, Henson discloses measuring said velocity of said second two vehicles nearly simultaneous to measuring said intermediate distance (see at least columns 9-10, lines 21-38).

6. Claims 32,43, and 46-50, are rejected under 35 U.S.C.103(a) as being unpatentable over Henson (5,134,393), and Stein (6,816,084) as applied to claim 27 above, and further in view of Helmcke et al. (3,796,871).

As per claim 32, Henson, and Stein do not disclose limiting of acceleration is caused by mechanical means. However, Helmcke et al. disclose limiting of acceleration is caused by mechanical means (see at least columns 5-6, lines 55-8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Henson, and Stein by combining limiting of acceleration is caused by mechanical means to control speed of vehicle.

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Also, as per claim 43, Helmcke et al. disclose causing initial distance to increase step includes the act of receiving information from one or more units corresponding to a speed of at least one leading vehicle located ahead of said at least one vehicle (see at least columns 6-7, lines 40-40).

As per claim 46, Helmcke et al. disclose calculating a target distance by processing information from one or more units before transmitting said acceleration limit information, said acceleration limit always corresponding to a speed less than speed information received from a forward unit (see at least columns 4-5, lines 50-23).

As per claims 47-48, Helmcke et al. disclose information is from a plurality of forward units, and information is weighted such that the speed information from the forwardmost unit receives the east weight in determining said acceleration limit (see at least columns 3-4, lines 55-35).

As per claims 49-50, Henson, and Stein do not disclose acceleration limiting step may only occur if a speed of one of said vehicles has reached a low threshold. However, Helmcke et al. disclose acceleration limiting may only limit positive acceleration, and acceleration limiting step may only occur if a speed of one of said vehicles has reached a low threshold (see at least columns 5-6, lines 55-8). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Henson, and Stein by combining acceleration limiting step may only occur if a speed of one of said vehicles has reached a low threshold to maintain vehicle speed spacing between vehicles.

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7. Claims 11-13, are rejected under 35 U.S.C.103(a) as being unpatentable over Henson (5,134,393), and Helmcke et al. (3,796,871) as applied to claim 1 above, and further in view of Breed et al. (6,405,132).

As per claim 11, Henson, and Helmcke et al. do not disclose transponder. However, Breed et al. disclose at least one speed regulation device includes at least one transponder (see at least columns 24-25, lines 49-3; and column 46, lines 16-28).). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Henson, and Helmcke et al. by combining at least one speed regulation device includes at least one transponder to detect presence of vehicle and other vehicle in the road traffic.

Also, as per claim 12, Breed et al. disclose at least one speed regulation device includes at least one broadcast device located along a roadway (see at least column 23, lines 1-55).

As per claim 13, Helmcke et al. disclose at least one regulation device includes a receiver (see at least column 4, lines 37-49).

8. Claims 33-36, and 38, are rejected under 35 U.S.C.103(a) as being unpatentable over Henson (5,134,393), and Stein (6,816,084) as applied to claim 27 above, and further in view of Breed et al. (6,405,132).

As per claim 33, Henson, and Stein do not disclose limiting of acceleration is caused by an RFID acceleration control system. However, Breed et al. disclose limiting of acceleration is caused by an RFID acceleration control system (see at least columns 37-38, lines 57-5). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Henson, and Stein by combining

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limiting of acceleration is caused by an RFID acceleration control system to determine vehicle location, and identity in the road traffic system.

Also, as per claim 34, Breed et al. disclose limiting of acceleration is controlled by a device that includes broadcast devices located along a roadway (see at least column 23, lines 1-55).

As per claims 35-36, and 38, Breed et al. disclose limiting of acceleration is received in the vehicle by an acceleration governor, acceleration governor includes a reception device, and reception device includes an RFID that can be read by a transponder (see at least columns 24-25, lines 49-3; and column 46, lines 15-28).

9. Claim 37, is rejected under 35 U.S.C.103(a) as being unpatentable over Henson (5,134,393), Stein (6,816,084), and Breed et al. (6,405,132) as applied to claim 36 above, and further in view of Gross et al. (6,326,903).

As per claim 37, Henson, Stein, and Breed et al. do not disclose reception device accepts EM signals from said broadcast device located along said roadway. However, Gross et al. disclose reception device accepts EM signals from said broadcast device located along said roadway (see at least column 4, lines 38-57). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Henson, Stein, and Breed et al. by combining reception device accepts EM signals from said broadcast device located along said roadway to detect traffic event along the roadway around the vehicle.

10. Claim 44, is rejected under 35 U.S.C.103(a) as being unpatentable over Henson (5,134,393), Stein (6,816,084), and Helmcke et al. (3,796,871) as applied to claim 43 above, and further in view of Gross et al. (6,326,903).

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As per claim 44, Henson, Stein, and Breed et al. do not disclose information is received by EMF transmission. However, Gross et al. disclose information is received by EMF transmission (see at least column 4, lines 38-57). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Henson, Stein, and Breed et al. by combining information is received by EMF transmission to monitor the preceding environment as well as evaluation of distances of speeds of multiple preceding vehicles.

11. Claim 45, is rejected under 35 U.S.C.103(a) as being unpatentable over Henson (5,134,393), Stein (6,816,084), and Helmcke et al. (3,796,871) as applied to claim 43 above, and further in view of Olsson (5,822,712).

As per claim 45, Henson, Stein, and Breed et al. do not disclose information is received through a LAN network. However, Olsson discloses information is received through a LAN network (see at least columns 12-13, lines 14-33). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teach of Henson, Stein, and Breed et al. by combining a LAN network for predicting the traffic flow in a road network to control vehicle spacing and speed regulating.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

. Pue (4,335,432)

. Krause et al. (5,684,475)

. Arnold (6,418,371)

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13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dalena Tran whose telephone number is 571-272-6968. The examiner can normally be reached on M-F (7:30 AM-5:30 PM), off every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on 571-272-6956. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner
Dalena Tran



April 27, 2005